



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,856	12/29/2005	Pentti Karhunen	0365-0642PUS1	7326
2292 7590 05/31/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER LEE, BENNY T	
			ART UNIT 2817	PAPER NUMBER
			NOTIFICATION DATE 05/31/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/542,856

Applicant(s)

KARHUNEN, PENTTI

Examiner

Benny Lee

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,3 is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Art Unit: 2817

This application is in condition for allowance except for the following formal matters:

In the Specification:

The disclosure is objected to because of the following informalities: Note that subheading for delineating the different portions of the specification should be provided for clarity of description. Page 1, first full paragraph and page 2, third & fourth full paragraphs, note that reference to "the preamble of Claim 1", the "characterizing portion of Claim 1" and the "characterizing portion of Claim 3" are inappropriate descriptions and should be deleted therefrom. Page 1, penultimate paragraph, note that "the said" should be rewritten as just "the" (i.e. "said" should be deleted). Page 4, first full paragraph, note that "summing unit 5" and "summing amplifier 5" need to be rewritten such as to be of consistent terminology. In the description of "fig. 3", note that a description of what each curve in the graph represents needs to be provided for clarity of description. Appropriate correction is required.

The abstract of the disclosure is objected to because of the following: Note that the reference to the "publication" is inappropriate and should be corrected and note that the reference to "(Figure 2)" is inappropriate and should be deleted. Correction is required. See MPEP § 608.01(b).

In the Drawings:

The drawings are objected to because of the following: In Fig. 1, note that the drawing figure needs to be designated as --PRIOR ART-- for consistency with the specification description. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet,

Art Unit: 2817

even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

In the Claims:

In claims 1, 3, note that the terminology "the divisions" should be rewritten as just -- divisions-- such as to avoid potential antecedent basis problems. Similarly, note that the terminology "the nominal wavelength" has been found objectionable since it has not been associated with a corresponding frequency of any signal. Also, note that --of the other transmission line-- is suggested for consistency in claim terminology.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Claims 1, 2; 3 are allowable over the prior art of record since none of the prior art teaches or fairly suggests feeding an antenna array by using two parallel transmission lines, which are (1)

Art Unit: 2817

fed from opposite ends; and (2) having divisions on one of the transmission lines which are smaller than the nominal wavelength while having divisions on the other transmission line which are greater than the nominal wavelength.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

McKay discloses plural parallel transmission having plural combined outputs, but does not teach feeding each transmission line from a different end and does not teach different divisions on the respective transmission lines.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 571 272 1764.

A handwritten signature in cursive script that reads "Benny Lee".

B. Lee

**BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817**